

CLAIMS

What is claimed is:

1. A method for transcoding web-page content for a limited-display
5 computing device comprising the steps of:
 - a) upon receiving a web page request from a limited-display computing device, sending the web page request to a server computer that contains the requested web page document;
 - b) receiving from said server computer a web page document that can be
10 used to generate a display;
 - c) searching said web page document for sequences of textual references to images that are directly adjoining;
 - d) when said web page document includes a sequence of textual references to images that are directly adjoining, rendering each of the images
15 represented by said textual references that are directly adjoining so as to generate a composite image;
 - e) scaling each composite image rendered in step d) to meet the display requirements of said limited-display computing device; and
 - f) sending each composite image scaled in step e) to said limited-display
20 computing device.
2. The method of Claim 1 wherein said web page document is written in a Hypertext Markup Language(HTML).

3. The method of Claim 2 wherein said sequence of textual references to images are directly adjoining vertically.

4. The method of Claim 1 wherein step d) further comprises:

5 d1) when said web page document includes a formatting object that includes a plurality of textual references to images, rendering each of the images represented by a textual references to an image that is disposed in said formatting object so as to generate a composite image.

10 5. The method as recited in Claim 1 wherein step e) further includes reducing the bit depth of said composite image to meet the display requirements of said limited-display computing device.

15 6. The method as recited in Claim 1 wherein said images rendered in step d) are rendered to an image size corresponding to the image size of a full-size display screen.

20 7. The method as recited in Claim 6 wherein all of said web page document except said images rendered in step d) are transcoded using a normal transcoding process and are sent in step f) to said limited-display computing device.

25 8. The method as described in Claim 1 wherein said limited-display computing device is selected from the group consisting of palmtop computing device , a mobile phone, a pager, and an Internet appliance.

9. A method for transcoding web-page content for a limited-display computing device comprising the steps of:

a) upon receiving a web page request from a limited-display computing device, sending the web page request to a server computer that contains the requested web page document;

b) receiving from said server computer a web page document that can be used to generate a display;

c) searching said web page document for formatting objects that include a plurality of textual references to images;

d) when said web page document includes a formatting object that includes a plurality of textual references to images, rendering each of the images represented by a textual references to an image that is disposed in said formatting object so as to generate a composite image;

e) scaling each composite image rendered in step d) to meet the display requirements of said limited-display computing device; and

f) sending each composite image scaled in step e) to said limited-display computing device.

10. The method of Claim 9 wherein said web page document is written in a Hypertext Markup Language(HTML).

11. The method of Claim 10 wherein said formatting object is a table.

12. The method of Claim 10 wherein said formatting object is a frame.

13. The method of Claim 9 wherein step d) further comprises:

d1) when said web page document includes a sequence of textual

5 references to images that are directly adjoining, rendering each of the images represented by said textual references that are directly adjoining so as to generate a composite image.

14. The method as recited in Claim 9 wherein step e) further includes

10 reducing the bit depth of said composite image to meet the display requirements of said limited-display computing device.

15. The method as recited in Claim 9 wherein said images rendered

in step d) are rendered to an image size corresponding to the image size of a full-size display screen.

16. The method as recited in Claim 15 wherein all of said web page

document except said images rendered in step d) are transcoded using a normal transcoding process and are sent in step f) to said limited-display

20 computing device.

17. The method as described in Claim 9 wherein said limited-display

computing device is selected from the group consisting of palmtop computing device , a mobile phone, a pager, and an Internet appliance.

18. In a computer system including a processor coupled to a bus, and a memory unit coupled to the bus for storing information, a computer-implemented method for transcoding web-page content for a limited-display computing device comprising the steps of:

a) upon receiving a web page request from a limited-display computing device, sending the web page request to a server computer that contains the requested web page document;

b) receiving from said server computer a web page document that can be used to generate a display;

c) searching said web page document for sequences of textual references to images that are directly adjoining and for formatting objects that include a plurality of textual references to images;

d) when said web page document includes a sequence of textual references to images that are directly adjoining, rendering each of the images represented by said textual references to images that are directly adjoining so as to generate a composite image;

e) when said web page document includes a formatting object that includes a plurality of textual references to images, rendering each of the images represented by a textual references to an image that is disposed in said formatting object so as to generate a composite image;

f) scaling each composite image rendered in steps d) and e) to meet the display requirements of said limited-display computing device; and

g) sending each composite image scaled in step f) to said limited-display computing device.

19. The computer-implemented method as described in Claim 18 wherein said web page document is written in a Hypertext Markup Language(HTML).

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20. The method of Claim 18 wherein said formatting object is a table.

21. The method of Claim 18 wherein said formatting object is a frame.

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